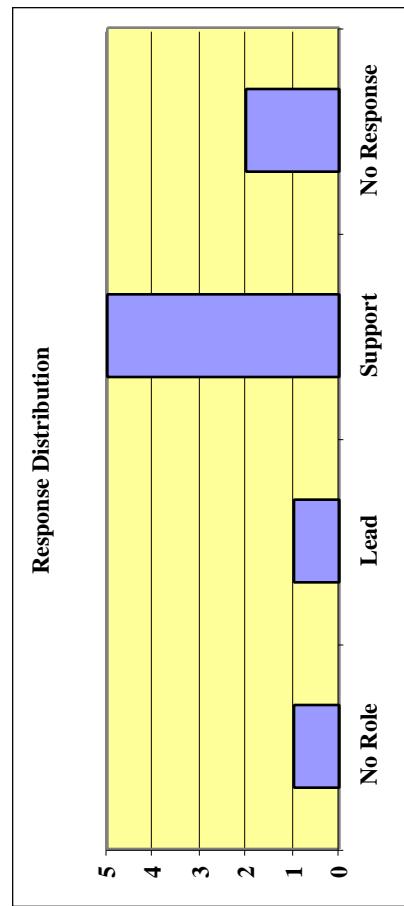


Appendix A:
Definitions of Common Functions for the ISS Utilization and
Research Programs
(Tier 1)

Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program

1. Defining and Implementing Policy and Strategic Plans

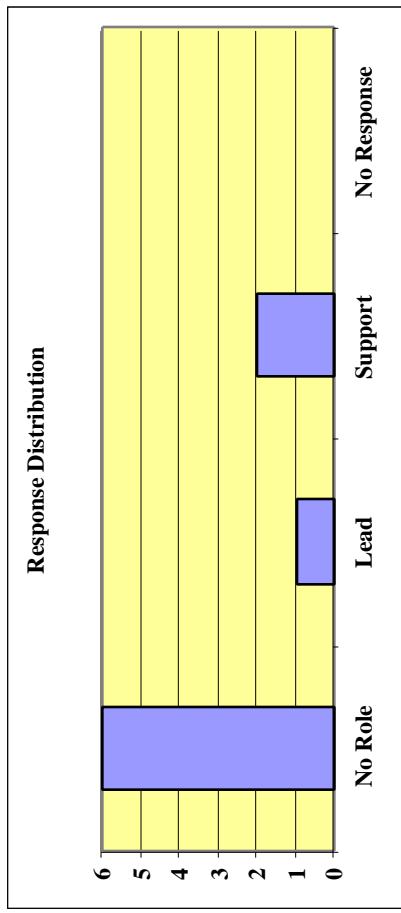
This function includes the development, definition and documentation of public policies and strategic plans related to the ISS research and utilization program, including the operation of all boards, panels and working groups and advisory committees involved in the process and responsible for approvals, concurrence, or recommendations. Policy and plan implementation is distributed across both headquarters and field center organizations. This function also includes international coordination, research program cooperation, and the associated forums for planning the research program on a strategic global scale within public policy.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program

2. Preparing and Allocating Budgets

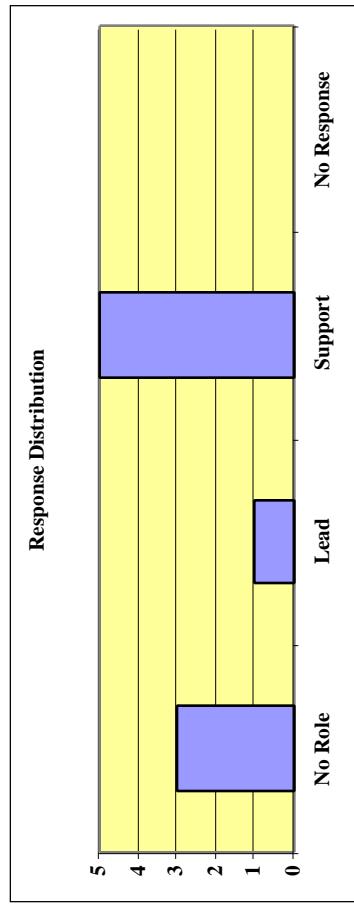
This function includes the development of guidelines, preparation and evaluation of recommendations, issue of allocations, analysis of impacts, re-planning activities, submission of formal budget requests, advocacy for appropriations, and all related tasks associated with the ISS utilization and research program in the area of fiscal planning and budgeting at the headquarters and field center levels.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

3. Selecting and Prioritizing Research

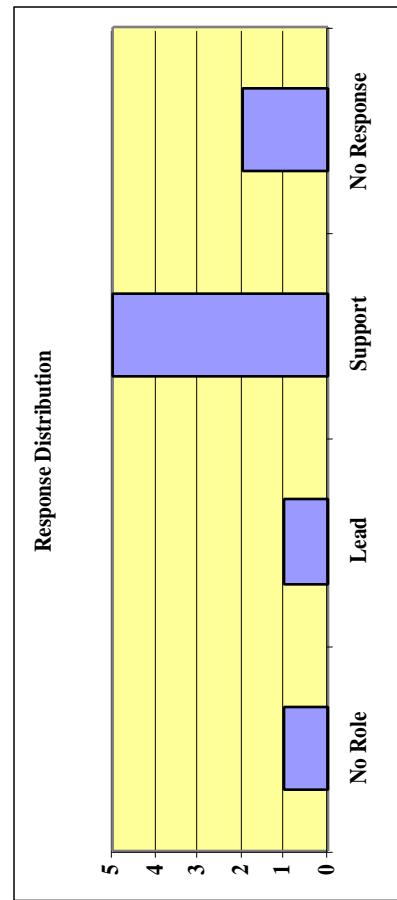
This function includes the announcement of research opportunities; operation of peer review panels in science and corresponding review bodies for technological or commercial projects; programmatic or other evaluations associated with the selection process; and selection/ prioritization of experiments, tests, demonstrations, or other research activities on the ISS. This function includes both the investigations and the associated payload manifests at the corresponding levels of detail associated with headquarters and field center prioritization and queuing processes.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

4. Establishing Experiment Requirements and Feasibility

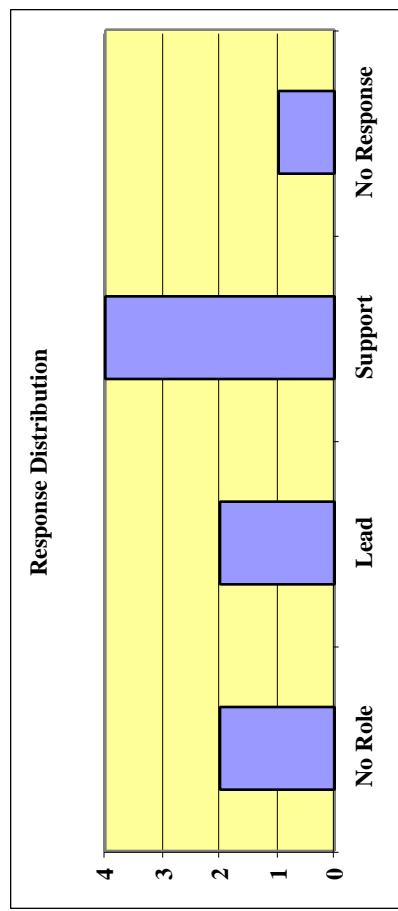
This function includes the definition of flight experiment, or research facility requirements in the form of design and performance specifications, as well as physical and functional accommodation assessments of proposed flight projects, including impacts associated with changes to plan in cost, schedule, or technical performance.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

5. Developing and Qualifying Research Flight Systems (non-recurrent)

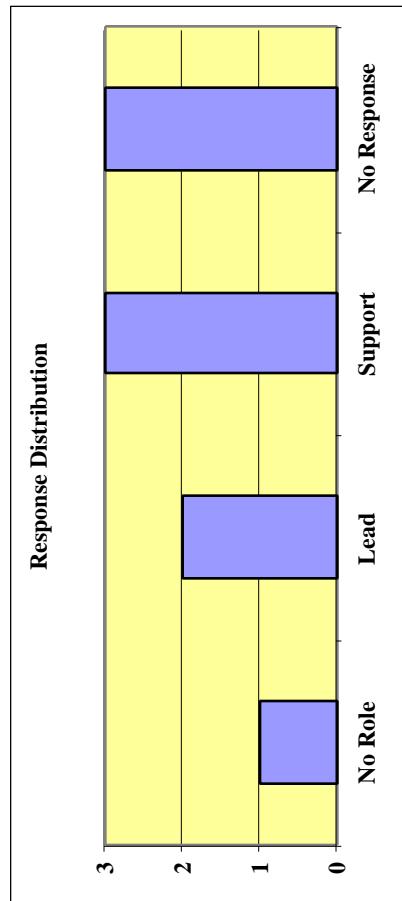
This function represents the design, development, test and evaluation of flight research equipment used in the transportation, accommodation or operation of research payloads on the ISS, including the preparation of all necessary documentation and conduct of qualification testing and acceptance procedures, protocols and processes. It is limited to major developments which represent a one-time, non-recurrent cost, regardless of whether future replacements are anticipated.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

6. Maintaining and Sustaining Research Flight Systems (recurrent)

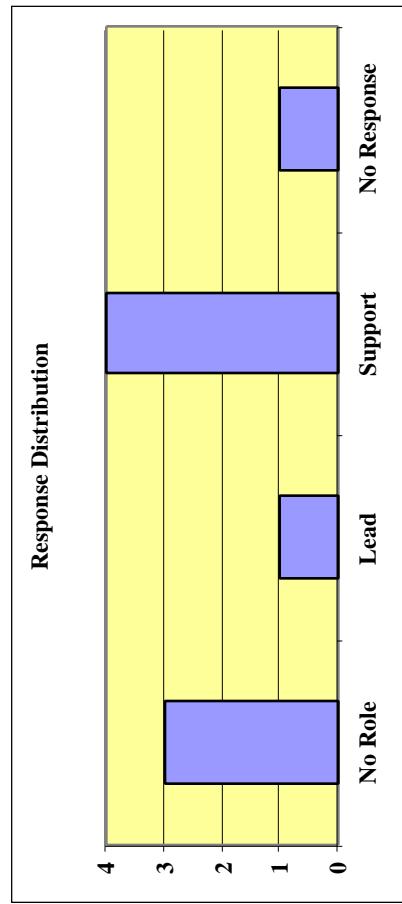
This function represents the maintenance, operations and sustaining of research flight systems through upgrades, replacements, spares, or the use of experiment-unique equipment on a mission-by-mission basis. It represents the recurring costs associated with item (5) above.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

7. Developing and Qualifying Research Ground Systems (non-recurrent)

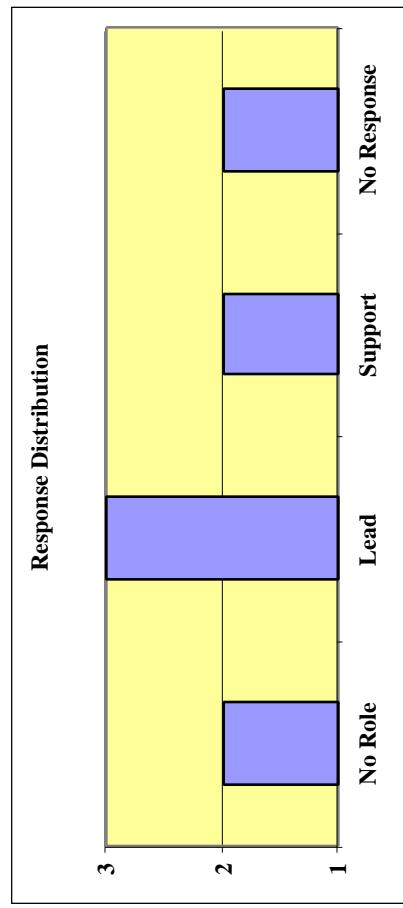
This function represents the counterpart to (5) above for research ground systems and includes all associated systems, subsystems, components or other related items necessary to the ground program in order to support flight research. Communications, data processing, payload control and processing centers, and sample/specimen handling systems are illustrative, but not exhaustive, of the scope. This function represents those major systems which have a non-recurrent cost.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

8. Maintaining and Sustaining Research Ground Systems (recurrent)

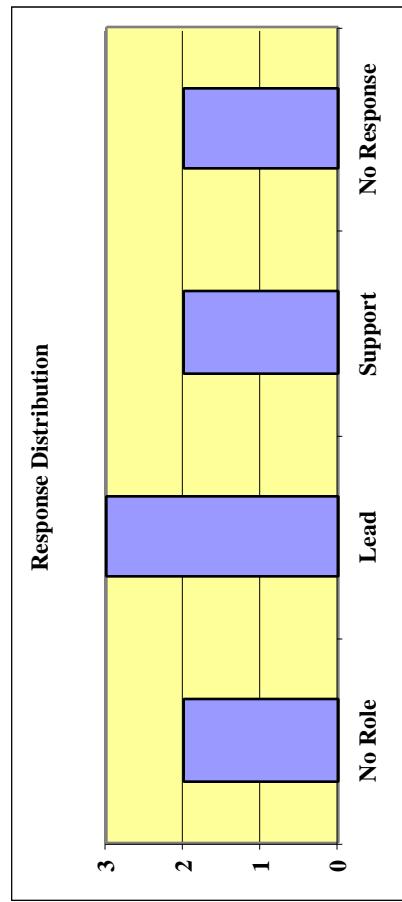
This function represents the counterpart to (6) above for research ground systems which require maintenance, operation, and sustaining activities on a recurrent cost basis.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

9. Constructing Ground Facilities (non-recurrent)

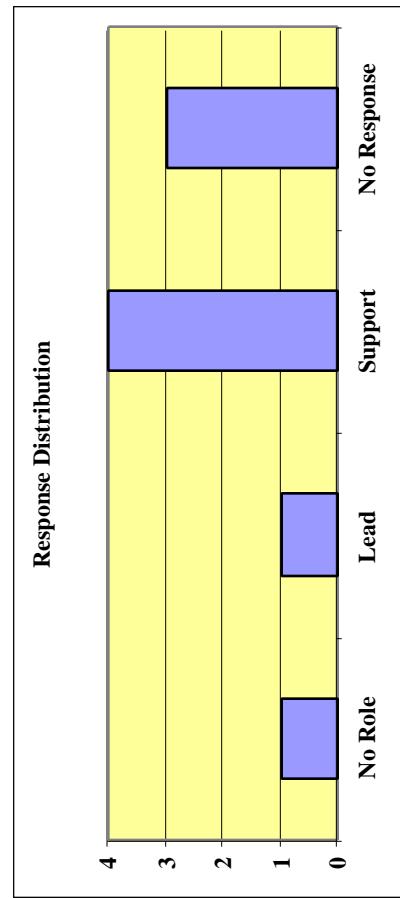
This function represents major acquisitions in terms of buildings, laboratories and test facilities associated with the research program and nominally funded through the Construction of Facilities (COF) process on a non-recurrent basis.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

10. Maintaining and Sustaining Ground Facilities (recurrent)

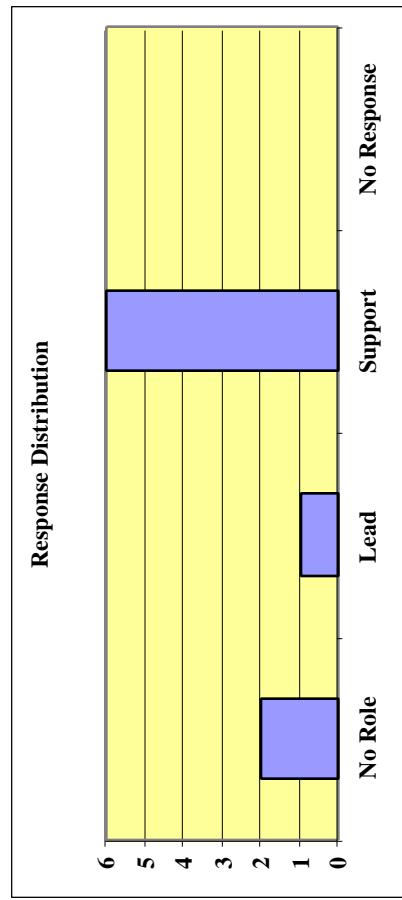
This is the corresponding function to (9) above for the recurrent functions associated with major buildings, laboratories, and test facilities for research.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

11. Certifying Safety of Research Flight Systems and Components

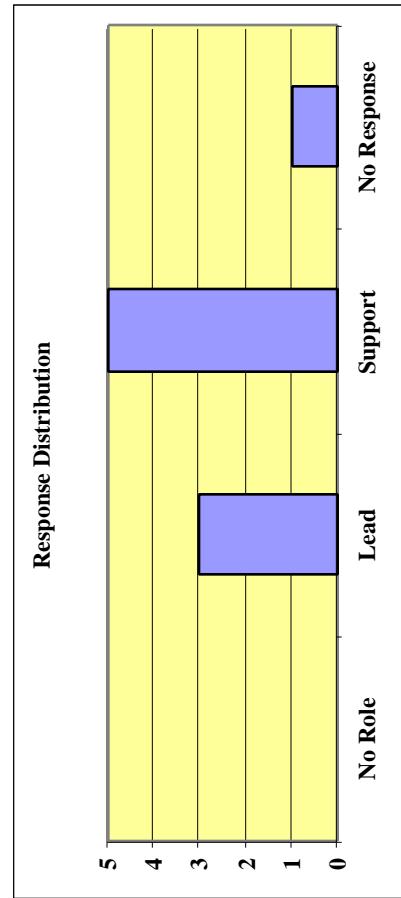
This function represents the certification of flight readiness and payload safety at the system, subsystem, component, and sample/specimen levels, including the safety of procedures, protocols and processes associated with payload, or experiment, transportation, accommodation or operations.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

12. Mission Management and Allocation of Services to Users

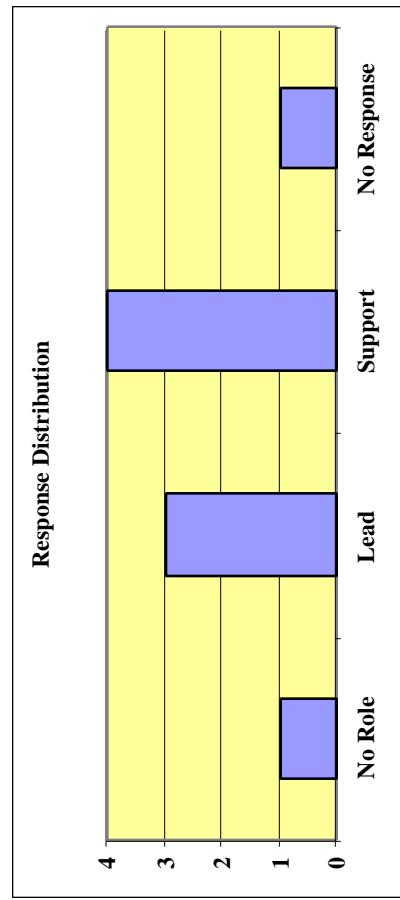
This function includes the negotiation of services between the end-user, or payload developer, and the Agency in order to ensure timely delivery of all payload data and equipment in accordance with agreed milestones. This function also includes the planning and scheduling of payload/experiment requested services (e.g. transportation, accommodations or operating resources) necessary for successful operations in flight or on the ground in pre and post-flight periods. The multilateral integration of utilization products and schedules across all participating organizations is included in this function.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

13. Integrating User Missions - Analytical

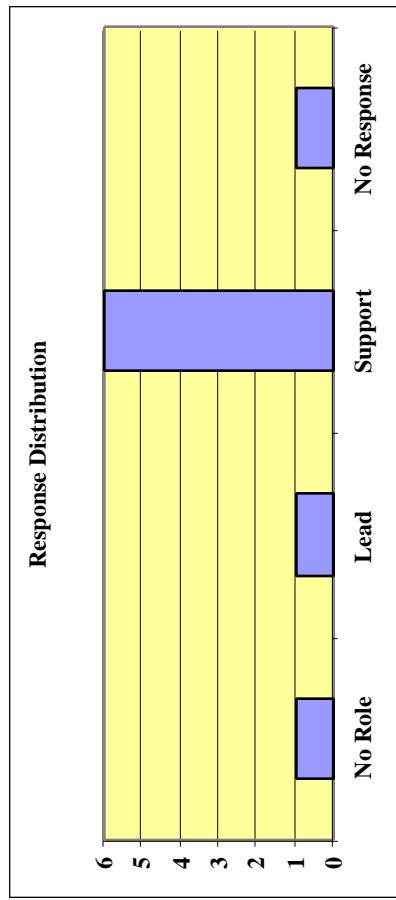
Analytical integration includes the application of mathematical models to integrate experiments, payloads, or payload complements at the rack, pallet, lab, or partner levels for the purposes of transportation, accommodation or operations. The function includes data collection, compatibility analysis, impact assessments and all associated analyses related to the planning and scheduling process for ISS utilization.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

14. Integrating User Missions - Physical

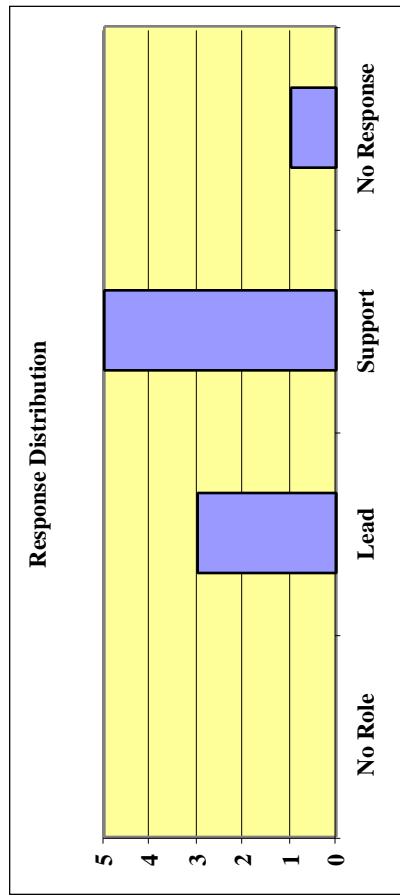
Physical integration includes the physical buildup, testing and loading of experiments, payloads, or payload complements during the ground phase in preparation for launch to the ISS.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

15. Integrating User Missions - Operations

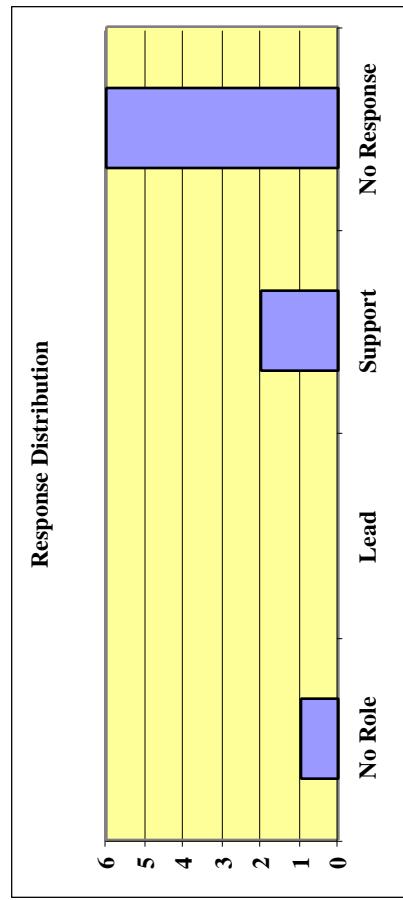
Operations integration includes the near real-time activity conducted at payload and station operations centers, including short term planning and re-planning, contingency planning, and response to unplanned events associated with or otherwise affecting the ISS research program at all levels. The payload training program is included in the operations integration function.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

16. Selecting Research Crew

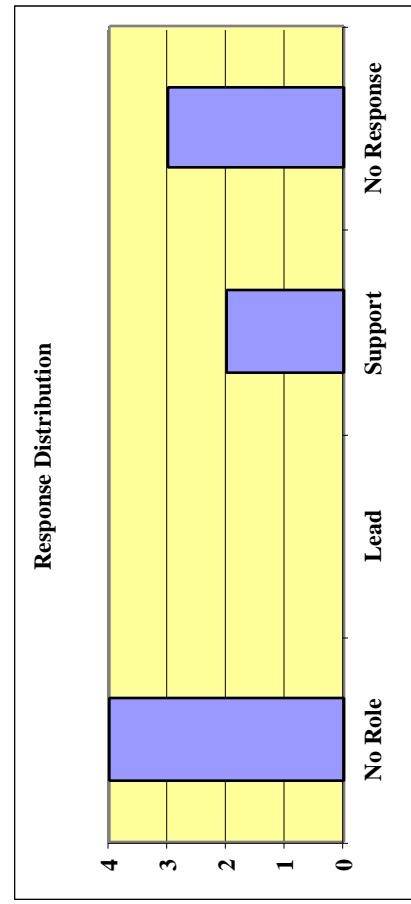
This function addresses the recruitment, qualification, and selection of crew associated with the ISS user operations.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

17. Conducting Research, Analyzing Data, and Publishing Results

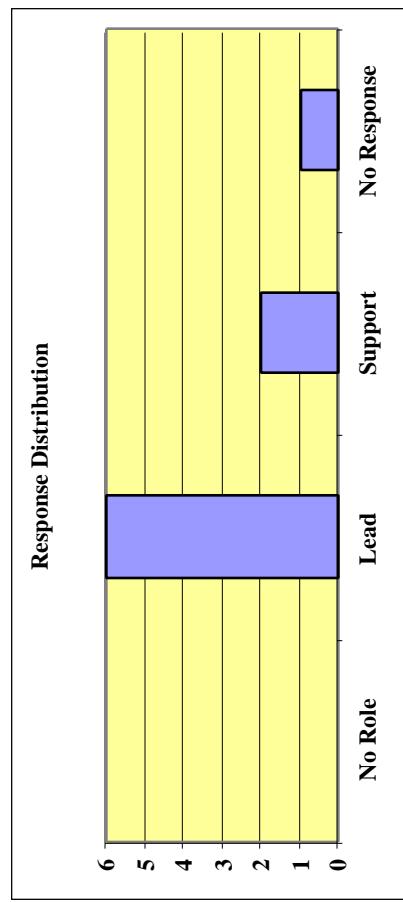
This function represents the work of the principle investigator in scientific endeavors, or the project leader in technological or commercial endeavors, that is directed toward the achievement of project objectives, as well as the post flight analysis and reporting of project results.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

18. Educating and Reaching Out to the Public

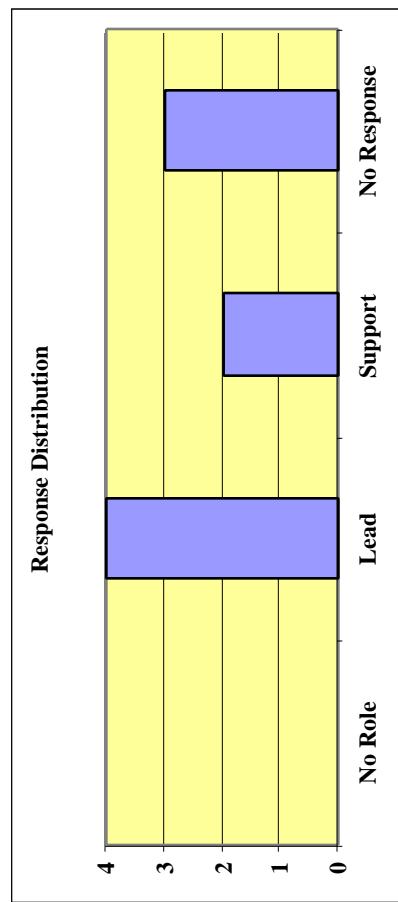
This function includes the dissemination of information to the public through a wide variety of means in order to educate and broaden general awareness of the ISS utilization program and associated benefits.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, continued

19. Recommending ISS System Pre-Planned Product Improvements (P3I)

This function represents the user community recommendations on how to improve ISS productivity through upgrades, changes, or additions to the ISS spacecraft systems and elements which improve quality or quantity of user accommodations or operations.



Appendix A: Definitions of Common Functions for the ISS Utilization and Research Program, concluded

20. Archiving Research Samples, Data, and Results

This function represents the ground archiving of research products for future use in an accessible manner which ensures preservation of information.

